CLEAN AIR ACT SECTION 112(r) INSPECTION REPORT

Hunter Panels, LLC
Kingston, NY

GENERAL INFORMATION

Stationary Source	Hunter Panels, LLC
Date of Inspection	September 3, 2008
USEPA Inspectors	Dwayne Harrington, USEPA – Region II (Edison, NJ)
Contract Auditor	Neil Mulvey, Sullivan Group (Subcontractor)
Description of Activities	• Opening meeting with facility representative. • Program audit. • Closing meeting with facility representatives. Program audit consisted of the following activities: 1. Document review. 2. Field verification. 3. Personnel interviews.

STATIONARY SOURCE INFORMATION

EPA Facility ID #	1000 0018 0092
Date of Latest Submission (used for RMP inspection)	Receipt Date: June 12, 2007 (Correction) Anniversary Date: June 7, 2009
Facility Location	1700 Enterprise Drive Kingston, NY 12401 (845) 334-5640
Number of Employees	*RMP*Submit* states 75 employees. Facility management reported 90 employees. Non-union employees.

Description of Surrounding Area	The facility is located in a commercial area on a large tract of property once owned by IBM (used to manufacture main frame computers). Production takes place in a 3.5 acre building. Located to the north are commercial businesses and Route 209. Also to the north are residential areas, schools, and a hospital. A small strip mall is located to the south, along with residential, school, recreation area, and a hotel. To the west is a small creek and farmland and interstate roads. To the east are railroad tracks, commercial properties, retail shopping, and wooded areas. The nearest resident is located approximately < 0.1 mile to the northeast.
Participants	Participants included: Dwayne Harrington, USEPA – Region II, Edison, NJ Neil P. Mulvey, USEPA Contractor – Sullivan Group Chris Closi, EHS Manager, Hunter Panels, LLC Marc Gannon, Plant Manager, Hunter Panels, LLC* Bob Alleva, Receiver, Hunter Panels, LLC** Ed Radzik, Maintenance Manager, Hunter Panels, LLC** * Lead representative for Hunter Panels. ** Participated in facility tour only.

REGISTRATION INFORMATION

Process ID #	70404 (Pentane Process)
Program Level (as reported in RMP)	Program 3
Process Chemicals	Pentane @ 148,000-lbs. Isopentane @ 148,000-lbs.
NAICS Code	32615 - Urethane and Other Foam Product (except Polystyrene) Manufacturing

GENERAL COMMENTS

Hunter Panels manufactures rigid polyisocyanurate foam insulating panels for use in commercial and industrial roofing applications. The polyisocyanurate foam insulating panels are produced by reacting a polyol in a blend including a flame retardant and catalyst with polymeric diphenylmethane diisocyanate. Pentane is used as an expanding or blowing agent in the production of the panels. Different varieties of pentane material can be used including various blends of n-pentane, isopentane, and cyclopentane.

The facility receives liquid pentane via tank truck and stores it in a 25,000-gallon aboveground pressure vessel. The tank is equipped with an automatic shutoff at 95% capacity. Depending on the particular blend, the weight of pentane material ranges from 131,000 – 148,000 pounds. The storage tank is a carbon steel ASME rated pressure vessel (250 PSIG). A nitrogen blanket in the tank maintains the pressure at approximately 10 – 15 PSIG. The facility receives a maximum of two pentane tank trucks per week for off-loading. The facility uses approximately 10,000-pounds of pentane per day.

Pentane is transferred via a pump located adjacent to the storage tank to a metering skid located in the manufacturing building. Pentane is cooled in a heat exchanger and discharged from the skid through two metering pumps and injected at high pressure into a polyol blend. Manufacturing includes one production line with three mixing heads where pentane is injected.

Tank truck unloading, the 25,000-gallon storage tank, and transfer pump are located outside north of the main production building. The metering skid is located inside an enclosed room adjacent to the manufacturing line. During the busy season (May – November) the facility operates 24/7 with four shifts. During the off-season, the facility typically operates 24/5 with three shifts. Hunter Panels operates a total of six manufacturing facilities in the US.

The process includes six pentane sensors located throughout the facility, including at the storage tank, transfer pump, inside the metering skid enclosure, at the pour table, at the laminator, and at the laminator return air. At 25% LEL the sensors will alarm and activate increased room ventilation fans. At 40% LEL the entire system will shut down.

RMP DOCUMENTATION

RMP documentation is maintained in a "Process Safety Management and Risk Management Program Manual". The original date of the manual is 10/5/02, with a most recent revision date of 1/16/08. The manual was revised in 2004, 2005, and 2007. The manual addresses both RMP and PSM and has sections for each major RMP element.

Comments regarding select RMP elements follow:

Management System [*40 CFR 68.15*] & Registration

The Plant Manager has overall responsibility for the site and for implementation of the RMP program. The EHS Manager has day-to-day responsibility for RMP implementation. Corporate Engineering and outside consultants are used as needed.

Documentation includes a written description of the RMP Management System, including job titles and specific list of responsibilities per job title. Facility Management demonstrated a good understanding of the RMP requirements and the facility's program. RMP records were readily accessible and well organized.

The facility's RMP registration lists both pentane and isopentane, each at 148,000-pounds. In fact, only one or the other material (or mixture of pentanes) is on-site at one time. While this registration gives the appearance that both materials are on-site at the same time, the Executive Summary provides clarification.

Hazard Assessment [*40 CFR 68.20-68.42*]

The nearest public receptor is approximately 0.4 miles from the facility. The facility used EPA's RMP Comp to determine the Worst Case and Alternative Case OCAs. The scenario descriptions and assumptions, parameters input to the models, distance to endpoints, and impacted residential population and environmental receptors were appropriate to the facility's operations and location.

Process Safety Information (PSI) [*40 CFR 68.65*]

The facility has excellent PSI documentation. See the RMP Checklist for details on PSI available for review.

Process Hazard Analysis (PHA) [*40 CFR 68.67*]

Two PHA reports were available for review:

Original PHA - May 21, July 11, July 22, and August 7, 2002

Used the What-If method. The process was organized into appropriate subsystems, including pentane unloading, pentane storage, pentane metering skid, transfer from skid to pour area, and the laminator. Documentation includes:

- Names of PHA team members. Team members included hourly operators, supervisors, maintenance personnel, EHS and management; lead by outside consultant.
- Detailed PHA worksheets including documentation of What-if Question, Consequence/Hazard, Conclusion / Recommendations. The "Conclusion / Recommendations" column listed both safeguards and recommendations

Several recommendations were identified and documentation included resolution of recommendations.

PHA Review - April 24, 2007 and August 7, 2007

Used the What-If method. The process was organized into appropriate subsystems, including pentane unloading, pentane storage, pentane metering skid, transfer from skid to pour area, and the laminator. Documentation includes:

- Names of PHA team members. Team members included hourly operators, supervisors, maintenance personnel, EHS and management; lead by outside consultant.
- Detailed PHA worksheets including documentation of What-if Question, Consequence/Hazard, Conclusion / Recommendations. The "Conclusion / Recommendations" column listed both safeguards and recommendations.
- Verification that PHA recommendations from the 2002 PHA were resolved.

Reviewed documentation of resolution regarding three PHA recommendations as follows:

Recommendation to conduct monthly inspections of chilled water system for potential leaks.

- Verified that written procedure exists.
- Documentation included only 1 monthly inspection performed in July 2007.
- There was no record of monthly inspections for remainder of 2007 or 2008. See Mechanical Integrity for recommendation.

Recommendation to ensure that the SOP for unloading pentane requires that pressure be relieved prior to disconnecting

- Verified that SOP was modified to include this requirement.

Recommendation to perform daily inspection of pentane piping.

- Verified that a written schedule exists for daily inspection of pentane piping. Spot checks confirmed that daily inspections were being performed.

Standard Operating Procedures (SOPs) [*40 CFR 68.69*]

The facility has two written SOPs for the covered process as follows:

Pentane Unloading Procedure

This SOP includes the following information:

- Special precautions
- Safety rules
- Safe operating limits
- Equipment description
- Step procedures for start-up
- Step procedures for shutdown
- Emergency shutdown instruction

Foam Panel Production Process Start-up/Shutdown Procedure – Using Pentane Expanding Agent

This SOP includes the following information:

- Special precautions
- Safety rules
- Safe operating limits
- Equipment description
- Step procedures for laminator, laminator heater, foam skid, alarm panel, pentane skid, start pour; includes start-up procedures for all equipment listed and one shutdown procedure
- Emergency shutdown instruction

The SOPs were readily accessible to operators.

The SOPs contained an inadequate description of 'Safety systems and their functions'. There was an inadequate description in the SOPs of the LEL detection system and specifically what happens during shutdown.

There was no record of annual certification of SOPs. There was some evidence that SOPs were discussed/reviewed during April 2007, but no SOP certification.

Training [*40 CFR 68.71*]

The facility has written procedure describing initial and refresher operator training. Procedure says refresher training is done once every three years, however, facility policy is to do refresher training annually. Training records include:

- List of topics covered
- Sign-ins
- Dates of training
- Instructor signature
- Written test to verify operator understanding of training provided

Records also include individual training documentation for each employee.

During the time of the 9/3/08 inspection, there were no individual training records for the 'Receiver', who is responsible for receiving and unloading of pentane tank trucks. The facility subsequently completed annual training on 9/5/08 and supplied corresponding documentation.

Mechanical Integrity [*40 CFR 68.73*]

The facility has a written mechanical integrity procedure, including a table of scheduled inspections and tests for individual pieces of equipment. The inspection and test schedule is detailed and provides a reasonable schedule.

There are several instances where documentation did not confirm that the required and scheduled inspection and test was performed, including the following:

- Monthly inspections of chilled water system for potential leaks.
- Annual testing/inspection of the aboveground pentane storage tank systems.
- Annual inspection of pentane ventilation system.
- Annual inspection and testing of safety features of metering skid.
- Annual inspection of pentane ventilation system (LEL conditions).
- Annual calibration of pentane flow meter.
- Annual pentane gas sensor calibration.

In some cases the facility produced documentation that the items was tested / inspected as scheduled, however this was not confirmed or documented on the individual "testing / inspection procedure" forms prepared for such documentation.

Management of Change (MOC) [*40 CFR 68.75*] & Pre-Startup Review (PSR) [*40 CFR 68.77*]

The facility has a written procedure for MOC and PSR. The MOC procedure includes a form to document and authorize changes. Only one MOC / PSR was on file for review, related to the addition of a third pentane metering pump and supply line (MOC / PSR approved January 2008). The MOC did not include documentation that the required 'safety and health review' was completed for this change. Additionally, the MOC noted that the P&ID must be updated to reflect new pentane metering pump and supply line. The P&ID is not yet updated. The facility did identify the need to update the P&ID during its May 2007 RMP Audit.

Compliance Audits [*40 CFR 68.79*]

The facility had copies of the two most recent RMP Compliance Audits available for review. The most recent audit was conducted on April 23 – 25, 2007 and documented in a report dated May 28, 2007. The audit was lead by an outside consultant. The audit team included facility personnel. Audit documentation was complete and thorough and RMP element specific. Documentation includes a completed RMP checklist. Numerous recommendations were identified and are being tracked to resolution.

The prior RMP Compliance Audit was conducted on February 24-26, 2004 and documented in a report dated April 2, 2004. The audit was lead by an outside consultant. The audit team included facility personnel. The RMP checklist was used.

Incident Investigation [*40 CFR 68.81*]

The facility has a written incident investigation procedure. Facility management reported that there have been no pentane releases in the last five-years.

Employee Participation [*40 CFR 68.83*]

The facility has a written Employee Participation Plan. The Plan describes how employees are involved in select RMP elements such as PSI, PHA, SOPs, Training, and Contractor Safety. Records include documentation of employee meetings regarding various RMP topics. Meeting records include meeting dates and employee sign-ins.

Hot Work Permit [*40 CFR 68.85*]

The facility has a written How Work Permit Program, including a hot work permit for documentation of authorized hot work. The HWP procedures comply with §1910.252(a). Reviewed and confirmed that hot work permits for work conducted on 3/7/08 and 3/26/08 were properly completed.

Contractor Safety [*40 CFR 68.87*]

The facility has a written Contractor Safety Procedure. The procedure includes procedures for contractor selection and orientation.

Reviewed records for contractor (CSI) involved in addition of the third pentane line which was completed in January 2008. Documentation included a record of contractor orientation, but no records of contractor selection or contractor performance evaluations.

Emergency Response [*40 CFR 68.90 – 68.95*]

The facility does not maintain an internal hazmat response team or fire brigade. The facility maintains an emergency action plan to immediately control incidents if possible and evacuate the facility, however, they coordinate with the local fire department to respond to and mitigate emergencies at the facility.

FACILITY TOUR

Several items noted during the facility tour include:

- A significant amount of vegetation was growing on and around the pentane transfer line from the low pressure pump to the building. **The facility must remove the vegetation to comply with NFPA recommendations to keep equipment handling flammable material free of vegetative growth and other potentially combustible material.**

- Facility management reported that they have the ability to change / replace PSVs on the pentane storage tank without taking the tank out of service. They explained that this is possible since they maintain a nitrogen blanket on the tank that allows the tank contents to remain in the tank while replacing the PSV.

FINDINGS/RECOMMENDATIONS

Standard Operating Procedures (SOPs) [*40 CFR 68.69*]

- The SOPs contained an inadequate description of 'Safety systems and their functions'. There was an inadequate description in the SOPs of the LEL detection system and specifically what happens during shutdown. **SOPs must be modified to include a description of safety systems and their functions, as required by 40 CFR 68.69(a)(4).**

- There was no record of annual certification of SOPs. **Written SOPs for the covered process must be certified annually, as required by 40 CFR 68.69(c).**

Training [*40 CFR 68.71*]

- During the time of the 9/3/08 inspection, there were no individual training records for the 'Receiver', who is responsible for receiving and unloading of pentane tank trucks. The facility subsequently completed annual training on 9/5/08 and supplied corresponding documentation. **The facility should complete scheduled operator training, as required by 40 CFR 68.71(b).**

Mechanical Integrity [*40 CFR 68.73*]

- There are several instances where documentation did not confirm that the required and scheduled inspection and test was performed, including the following:

  - Monthly inspections of chilled water system for potential leaks.
  - Annual testing/inspection of the aboveground pentane storage tank systems.
  - Annual inspection of pentane ventilation system.
  - Annual inspection and testing of safety features of metering skid.
  - Annual inspection of pentane ventilation system (LEL conditions).
  - Annual calibration of pentane flow meter.
  - Annual pentane gas sensor calibration.

  In some cases the facility produced documentation that the items was tested / inspected as scheduled, however this was not confirmed or documented on the individual "testing / inspection procedure" forms prepared for such documentation. **The facility must ensure that scheduled inspections and tests are performed, as required by 40 CFR 68.73(d)(1).**

Management of Change (MOC) [*40 CFR 68.75*]

- The MOC review related to the addition of a third pentane metering pump and supply line (MOC / PSR approved January 2008), did not include documentation that the required 'safety and health review' was completed for this change. **The facility must ensure that a safety and health review is completed for all process changes, as required by 40 CFR 68.75(b)(2).**

- The MOC review related to the addition of a third pentane metering pump and supply line (MOC / PSR approved January 2008) noted that the P&ID must be updated to reflect new pentane metering pump and supply line. The P&ID is not yet updated. **The facility must ensure that PSI, including P&IDs, are updated to reflect process changes, as required by 40 CFR 68.75(d).**

Contractor Safety [*40 CFR 68.87*]

- Reviewed records for contractor (CSI) involved in addition of the third pentane line which was completed in January 2008. Documentation included a record of contractor orientation, but no records of contractor selection or contractor performance evaluations. **The facility must ensure that implementation of the Contractor Safety Program for covered contractors includes contractor selection and contractor performance evaluations, as required by 40 CFR 68.87(b)(1) and (b)(5).**